March 19, 2019

Page 1 of 9

1		DIRECT TESTIMONY AND EXHIBITS OF
2		ANTHONY SANDONATO
3		ON BEHALF OF
4		THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF
5		DOCKET NO. 2019-2-E
6		IN RE: ANNUAL REVIEW OF BASE RATES FOR FUEL COSTS FOR
7		SOUTH CAROLINA ELECTRIC & GAS COMPANY
8		
9	Q.	PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.
10	A.	My name is Anthony Sandonato. My business address is 1401 Main Street, Suite
11		900, Columbia, South Carolina, 29201. I am employed by the South Carolina Office of
12		Regulatory Staff ("ORS") in the Utility Rates and Services Division as a Regulatory
13		Analyst.
14	Q.	PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.
15	A.	I received my Bachelor of Science in Nuclear Engineering from North Carolina
16		State University in 2011. Prior to my employment with ORS, I was employed as an analyst
17		with a global professional, technology, and marketing service firm working with large
18		investor-owned utilities on energy efficiency program design and implementation. I joined
19		ORS in 2016.
20	Q.	HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC SERVICE
21		COMMISSION OF SOUTH CAROLINA ("COMMISSION")?
22	A.	Yes.
23	Q.	WHAT IS THE MISSION OF THE OFFICE OF REGULATORY STAFF?

Page 2 of 9

March 19, 2019

1

2

3 4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Α.

A.

A.	ORS	represents	the	public	interest	as	defined	by	the	South	Carolina	General
	Assembly as	follows:										

The concerns of the using and consuming public with respect to public utility services, regardless of the class of customer, and preservation of continued investment in and maintenance of utility facilities so as to provide reliable and high-quality utility services.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

The purpose of my testimony is to set forth ORS's recommendations resulting from our examination and review of South Carolina Electric & Gas Company's ("SCE&G" or "Company") fuel expenses and power plant operations used in the generation of electricity to meet the Company's retail customer requirements during the review period. The review period includes the actual data for January 2018 through December 2018 ("Actual Period"), estimated data for January 2019 through April 2019 ("Estimated Period"), and forecasted data for May 2019 through April 2020 ("Forecasted Period").

WHAT DID YOUR REVIEW OF THE COMPANY'S FUEL EXPENSES AND Q. PLANT OPERATIONS INVOLVE?

ORS examined various fuel and performance related documents as part of our review. These documents addressed the Company's electric generation and power plant outage and maintenance activities. In preparation for this proceeding, ORS analyzed the Company's monthly fuel reports including power plant performance data, unit outages and generation statistics. ORS examined the Company's contracts for nuclear fuel, coal, natural gas, fuel oil, transportation, and environmental reagents. ORS also evaluated the Company's policies and procedures for fuel procurement. All information was reviewed with reference to the Company's existing Adjustment for Fuel, Variable Environmental, Avoided Capacity, and Distributed Energy Resource Costs, S.C. Code Ann. §58-27-865

1

7

8

9

10

11

12

13

23

Page 3 of 9

March 19, 2019

(2015) (the "Fuel Clause Statute"), and the approved South Carolina Distributed Energy

- 2 Resource Program ("DERP"). Additionally, ORS attended the April 25, 2018, Nuclear
- Regulatory Commission ("NRC") 2017 post-annual inspection meeting for the V.C.
- 4 Summer Nuclear Station ("V.C. Summer").

5 Q. WHAT ADDITIONAL STEPS WERE TAKEN IN ORS'S REVIEW OF THE 6 COMPANY'S PROPOSAL IN THIS PROCEEDING?

A. ORS met with Company personnel from various departments to discuss and review fossil and nuclear fuel procurement, fuel transportation, environmental compliance costs and procedures, emission allowances, generation plant performance, distributed energy resources, forecasting, and general Company policies and procedures pertaining to fuel procurement. These meetings occurred at ORS offices as well as SCE&G facilities in Cayce, SC. In addition, ORS monitors the nuclear, coal, natural gas, transportation and renewable industries through industry and governmental publications.

14 Q. HAS THE COMPANY INCREASED ITS BASELOAD GENERATION 15 PORTOFLIO IN 2018?

Yes. SCE&G added approximately 540 megawatts (MW) of generation through
the acquisition of the Columbia Energy Center combined cycle gas-fired generation facility
located near Gaston, SC. The Company finalized the purchase of the Columbia Energy
Center on May 3, 2018 following Order No. 2018-272 in Docket No. 2018-25-E which
approved the transfer of a Certificate of Environmental Compatibility and Public
Convenience and Necessity from Columbia Energy LLC to SCE&G.

22 Q. DID ORS EXAMINE THE COMPANY'S PLANT OPERATIONS FOR THE

ACTUAL PERIOD?

Page 4 of 9

March 19, 2019

1

2

3

4

5

6

8

11

12

13

14

15

16

17

18

19

20

21

A.

Α.

Yes. ORS reviewed the performance of the Company's generation units to
determine if the Company made reasonable efforts to maximize unit availability and
minimize fuel costs. ORS also reviewed the operating statistics of the Company's power
plants by unit. Exhibit AMS-1 shows, in percentages, the annual availability, capacity, and

forced outage factors of the Company's major generation units during the Actual Period.

This exhibit also includes the North American Electric Reliability Corporation ("NERC")

7 national five-year (2013-2017) averages for availability, capacity, and forced outage

factors for each type of generation plant.

9 Q. PLEASE EXPLAIN HOW THE OUTAGES ARE REPRESENTED ON EXHIBITS 10 AMS-2 THROUGH AMS-4.

Exhibits AMS-2 and AMS-3 summarize outages lasting seven (7) or more days for major coal and natural gas units during the Actual Period, respectively. While not all plant outages were included in these exhibits, all outages were reviewed and found to be reasonable by ORS. Exhibit AMS-4 shows the duration, type and cause of each of the outages at V.C. Summer. During the Actual Period, there was one (1) scheduled refueling outage. ORS reviewed the outage, including associated NRC documents, discussed the outage with Company management, and determined that the Company responded appropriately. V.C. Summer operated efficiently with an average availability factor of 86.07% and an average capacity factor of 87.05% during the Actual Period.

Q. WHAT WERE THE RESULTS OF YOUR ANALYSIS OF THE COMPANY'S POWER PLANT OPERATIONS FOR THE ACTUAL PERIOD?

availability and minimize fuel costs.

ELECTRONICALLY FILED - 2019 March 19 3:38 PM - SCPSC - Docket # 2019-2-E - Page 5 of 20

1

2

3

Α.

- 4 Q. DID ORS REVIEW THE COMPANY'S GENERATION MIX DURING THE
- 5 **ACTUAL PERIOD?**
- 6 Α. Yes. Exhibit AMS-5 shows the generation mix for the Actual Period by percentage 7 and generation type. As shown in this exhibit, the nuclear, coal, and natural gas plants 8 contributed an average of 19.37%, 33.15% and 37.12%, respectively, of the Company's 9 generation throughout the Actual Period. This equates to approximately 89.64% of the 10 Company's generation for the Actual Period. The remainder of the generation was met 11 through a mix of hydroelectric, renewables, and purchased power.
- DID ORS EXAMINE THE COMPANY'S FUEL COSTS ON A PLANT-BY-PLANT 12 Q. BASIS FOR THE ACTUAL PERIOD? 13
- 14 Α. Yes. Exhibit AMS-6 shows the average fuel costs for the major generation plants 15 on the Company's system for the Actual Period and the megawatt-hours ("MWh") 16 produced by those plants. V.C. Summer generation statistics reflect SCE&G's 2/3 17 ownership of the plant. The chart shows the lowest average fuel cost of 0.950 18 cents/kilowatt-hour ("kWh") at V.C. Summer and the highest average fuel cost of 5.331 19 cents/kWh at McMeekin Station. The Company utilizes economic dispatch which 20 generally requires that the lower cost units be dispatched first.
- DID ORS REVIEW THE COMPANY'S VARIABLE ENVIRONMENTAL 21 Q. 22 **COMPLIANCE RELATED COSTS?**

March 19, 2019

1

2

3

4

5

6

7

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

Α.

Q.

A.

Α.

Page 6 of 9

Yes. ORS reviewed the Company's environmental compliance related costs
including allowances for nitrogen oxide ("NO _X ") and sulfur dioxide ("SO ₂ ") emissions,
reagents, and chemicals used in the reduction of these emissions. The use of these
chemicals and reagents reduces the Company's NO _X and SO ₂ emissions, and the costs
associated with the use of these substances are included in the Company's Adjustment for
Fuel, Variable Environmental, Avoided Capacity, and Distributed Energy Resource Costs
tariff as provided by the Fuel Clause Statute.

8 Q. HAS ORS REVIEWED THE ACCURACY OF THE COMPANY'S FORECAST?

Yes. As shown in Exhibit AMS-7, the Company's actual MWh sales were 2.20% higher than expected during the Actual Period. Exhibit AMS-8 shows that, on average, the actual fuel costs for the Actual Period were 4.95% higher than the projected monthly fuel costs.

WHAT CHANGES DOES THE COMPANY REQUEST TO ITS CURRENTLY APPROVED FACTORS?

Exhibit AMS-9 shows ending period balances of base fuel, environmental and avoided capacity costs, and DERP avoided costs beginning in January 2009. As of December 2018, the Company had a base fuel cumulative over-recovery balance of \$8,740,636, a variable environmental and avoided capacity over-recovery balance of \$2,120,185, and DERP avoided costs over-recovery balance of \$1,856,462. As shown on ORS witness Briseno's Exhibit ADB-5, page 2 of 2, ORS projects the Company to have a base fuel cumulative under-recovery balance of \$5,333,261, a variable environmental and avoided capacity over-recovery balance of \$2,798,751, and DERP avoided costs over-recovery balance of \$1,648,629 as of April 30, 2019.

Page 7 of 9

March 19, 2019

SCE&G requests that the Commission allow the Company to maintain the currently approved Base Fuel Component of 2.451 cents/kWh ("Base Fuel Component") for the Forecasted Period. As shown in Company witness EXHIBIT NO. __(AWR-10), this proposed Base Fuel Component is projected to give the Company an under-collected balance of \$35,416,383 as of April 30, 2020. The Company has also requested that it be allowed to charge and accrue carrying costs monthly on its under-collected balance. This carrying cost rate proposed by the Company would be equal to the 3-year United States Treasury Note rate plus 65 basis points. The Company has indicated through its testimony filed in this Docket that it is looking for ways to mitigate rate impacts to its retail electric customers.

The Company has requested to update its Variable Environmental and Avoided Capacity Cost Component ("Environmental and Avoided Capacity Component") and DERP Avoided Cost Component ("DERP Avoided Cost Component") to reflect the Company's forecasted expenses and allocation of these expenses to each class of customer based on its contribution to the Company's summer 2018 demand peak. The proposed Environmental and Avoided Capacity Components are projected to give the Company an under-collected balance of \$2,792 as of April 30, 2020. The proposed DERP Avoided Cost Components are projected to give the Company an under-collected balance of \$45,423 as of April 30, 2020.

Q. ARE THERE ANY ADDITIONAL FACTORS IN THIS DOCKET THAT WILL IMPACT CUSTOMERS' BILLS?

March 19, 2019 Page 8 of 9

1 Α. Yes. The Company has included proposed rates related to its DERP incremental 2 expenses. As addressed by ORS witness Lawyer, incremental expenses will be recovered as a fixed charge ("DERP Charge") on customers' bills. 3 4 Q. DOES ORS RECOMMEND ANY ADJUSTMENTS TO THE FUEL FACTORS 5 PROPOSED BY THE COMPANY? 6 Α. No. ORS recommends that the Commission approve the Company's request that 7 the current Base Fuel Component remain in effect for bills rendered on and after the first 8 billing cycle for May 2019, and continue through the last billing cycle for April 2020. 9 Additionally, ORS recommends that the Company be allowed to collect carrying costs at 10 a rate equal to the 3-year United States Treasury Note plus 65 basis points on the 11 Company's under-collected balance. Finally, ORS recommends that the Commission 12 approve the Company's proposed Environmental and Avoided Capacity Components and DERP Avoided Cost Components for the period of May 2019 through April 2020. 13 14 Q. WHAT IMPACT WILL THE PROPOSED CHANGE HAVE ON THE TYPICAL 15 MONTHLY BILL OF A RESIDENTIAL CUSTOMER? 16 Exhibit AMS-10 is a summary of the proposed fuel factor components for each Α.

17 customer class. If approved by the Commission, the rates proposed would decrease the 18 typical monthly bill for a Residential Customer on Rate 8 using 1,000 kWh from \$124.91 19 to approximately \$124.71, a net decrease of \$0.20 or 0.16%.

20 Q. WILL YOU UPDATE YOUR TESTIMONY BASED ON INFORMATION THAT 21 **BECOMES AVAILABLE?**

Docket No. 2019-2-E March 19, 2019

Page 9 of 9

- Yes. ORS fully reserves the right to revise its recommendations via supplemental 1 A. 2 testimony should new information not previously provided by the Company, or other 3 sources, become available.
- DOES THIS CONCLUDE YOUR TESTIMONY? 4 Q.
- 5 Yes, it does. A.

EXHIBIT AMS-1

Power Plant Performance Data

				Actual Period Data	
Plant	Unit	MW Rating	Average Availability Factor (%)	Average Capacity Factor (%)	Average Forced Outage Factor (%)
Cope		415	77.34	47.29	3.35
Wateree	1	342	91.01	59.16	1.43
Wateree	2	342	91.24	67.68	1.26
Williams		605	83.77	55.68	0.08
Coal Totals		1,704	85.84	56.74	1.53
NERC 5-year average (All Coal	! Plants)		84.04	56.01	4.88
McMeekin	1	125	93.82	29.66	0.05
McMeekin	2	125	94.02	25.56	0.00
Urquhart	3	96	43.25	9.59	0.39
Natural Gas Totals		346	77.03	22.61	0.15
NERC 5-year average (Natural	Gas Plai	nts)	82.34	11.20	5.13
Columbia Energy Center ²	1	142	80.32	67.85	0.05
Columbia Energy Center ²	2	142	73.91	60.23	0.67
Columbia Energy Center ²	3	220	80.44	46.39	0.06
Jasper	1	156	88.62	73.77	0.41
Jasper	2	164	87.91	73.39	0.00
Jasper	3	147	88.99	73.98	0.00
Jasper	4	385	90.48	55.16	0.04
Urquhart	5	162	82.97	52.58	0.21
Urquhart	1	64	82.73	64.49	0.35
Urquhart	6	168	83.23	41.69	0.26
Urquhart	2	64	83.02	52.07	0.34
CC ¹ Totals		1,814	83.87	59.00	0.22
NERC 5-year average (CC Plan	uts)		87.89	52.72	2.48
V.C. Summer	13	966	86.07	87.05	0.00
Nuclear Totals		966	86.07	87.05	0.00
NERC 5-year average (All Nucl	lear Plan	ts)	90.44	91.72	2.02

¹ CC designates Combined-Cycle units

² Columbia Energy Center was purchased by SCE&G on 5/3/2018

³ V.C. Summer Unit Ownership: SCE&G (66.67%) and South Carolina Public Service Authority (33.33%)

Office of Regulatory Staff

Coal Unit Outages - 7 Days or Greater Duration

Unit	Date Offline	Date Online	Hours	Outage Type	Explanation of Outage
Cope 1	2/12/18	2/21/18	224.0	Planned	Unit take offline for planned Spring outage
Cope 1	9/21/18	11/18/18	1,379.3	Planned	Unit taken offline for planned Fall outage
Wateree 1	10/20/18	11/12/18	553.2	Planned	Unit taken offline for planned Fall outage
Wateree 2	3/21/18	4/17/18	656.7	Planned	Unit taken offline for planned Spring outage
Williams ¹	12/3/17	1/19/18	1,128.0	Outage Extension	Scheduled maintenance outage extended due to emergent issues
Williams	3/15/18	3/27/18	281.8	Planned	Unit taken offline for planned Fall outage
Williams	11/26/18	12/16/18	473.0	Planned	Unit taken offline for planned Fall outage

¹ This outage began prior to the beginning of the Actual Period.

Natural Gas Unit Outages - 7 Days or Greater Duration

Unit	Date Offline	Date Online	Hours	Outage Type	Explanation of Outage
Columbia Energy Center 1	5/18/18	5/27/18	200.7	Planned	Unit taken offline for a planned Spring outage
Columbia Energy Center 1	10/10/18	11/17/18	904.6	Planned	Unit taken offline for a planned Fall outage.
Columbia Energy Center 2	5/18/18	5/30/18	277.9	Planned	Unit taken offline for a planned Spring outage
Columbia Energy Center 2	10/10/18	11/27/18	1,147.7	Planned	Unit taken offline for a planned Fall outage.
Columbia Energy Center 3	5/18/18	5/27/18	203.2	Planned	Unit taken offline for a planned Spring outage
Columbia Energy Center 3	10/10/18	11/17/18	906.0	Planned	Unit taken offline for a planned Fall outage
Jasper 1	4/13/18	5/19/18	854.1	Planned	Unit taken offline for a planned Spring outage
Jasper 2	4/14/18	5/19/18	836.6	Planned	Unit taken offline for a planned Spring outage
Jasper 3	4/14/18	5/17/18	788.0	Planned	Unit taken offline for a planned Spring outage
Jasper 4	4/14/18	5/19/18	830.1	Planned	Unit taken offline for a planned Spring outage
McMeekin 1	9/9/18	10/1/18	535.3	Planned	Unit taken offline for a planned Fall outage
McMeekin 2	2/19/18	2/26/18	174.7	Planned	Unit taken offline for a planned Spring outage
McMeekin 2	10/1/18	10/15/18	349.4	Planned	Unit taken offline for a planned Fall outage
Urquhart 1	2/23/18	4/15/18	1,222.5	Planned	Unit taken offline for planned Spring outage

Natural Gas Unit Outages - 7 Days or Greater Duration South Carolina Electric & Gas Company Docket No. 2019-2-E

Unit	Date Offline	Date Online	Hours	Outage Type	Explanation of Outage
Urquhart 1	11/24/18	12/4/18	238.3	Planned	Unit taken offline for a planned Fall outage
Urquhart 2	2/24/18	4/17/18	1,248.9	Planned	Unit taken offline for planned Spring outage
Urquhart 2	12/1/18	12/8/18	176.0	Planned	Unit taken offline for a planned Fall outage.
Urquhart 5	2/23/18	4/15/18	1,217.9	Planned	Unit taken offline for planned Spring outage
Urquhart 5	11/24/18	12/4/18	234.1	Planned	Unit taken offline for a planned Fall outage
Urquhart 6	2/24/18	4/17/18	1,242.7	Planned	Unit taken offline for planned Spring outage
Urquhart 6	12/1/18	12/8/18	176.0	Planned	Unit taken offline for a planned Fall outage.
Urquhart 3	2/21/18	4/21/18	1,432.0	Planned	Unit taken offline for planned Spring outage
Urquhart 3	4/22/18	7/2/18	1,719.1	Extension	Scheduled maintenance outage extension for LP turbine rotor bucket repair
Urquhart 3	11/3/18	11/10/18	186.0	Planned	Unit taken offline for planned Spring outage
Urquhart 3 ¹	11/11/18	2/24/19	2,530.0	Extension	Scheduled maintenance outage extended due to emergent issues

¹ This outage ended after the Actual Period.

Office of Regulatory Staff

Nuclear Unit Outages

South Carolina Electric & Gas Company

Docket No. 2019-2-E

V.C. Summer Nuclear StationDate OfflineDate OnlineHoursOutage TypeExplanation of Outage10/5/1811/25/181,219.9PlannedV.C. Summer Refueling Outage 24

EXHIBIT AMS-5

Office of Regulatory Staff Generation Mix (Percentage) South Carolina Electric & Gas Company Docket No. 2019-2-E

May June July Aug Sept 22.83 19.38 19.49 19.10 20.08 38.54 36.65 34.18 35.30 31.38 27.05 36.74 39.75 38.60 41.80 3.39 3.06 2.75 3.07 3.70 0.00 0.00 0.00 0.00 0.00 2.03 1.67 1.68 1.62 1.46 3.93 0.07 0.09 0.07 0.03			ŀ			ı	2018	81				ı	ı	
19.38 19.49 19.10 20.08 36.65 34.18 35.30 31.38 36.74 39.75 38.60 41.80 3.06 2.75 3.07 3.70 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.07 0.03 0.03		Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
33.99 30.36 33.12 38.54 36.65 34.18 35.30 31.38 34.12 28.73 23.05 27.05 36.74 39.75 38.60 41.80 1.83 2.48 2.69 3.39 3.06 2.75 3.07 3.70 1.62 2.14 2.70 2.23 2.43 2.06 2.24 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.08 2.11 2.60 2.03 1.67 1.68 1.62 1.46 0.09 7.94 8.06 3.93 0.07 0.09 0.07 0.03	2	0.55	26.27	26.24	27.78	22.83	19.38	19.49	19.10	20.08	3.41	2.64	24.72	19.37
34.12 28.73 23.05 27.05 36.74 39.75 38.60 41.80 1.83 2.48 2.69 3.39 3.06 2.75 3.07 3.70 1.62 2.14 2.70 2.23 2.43 2.06 2.24 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.08 2.11 2.60 2.03 1.67 1.68 1.62 1.46 0.09 7.94 8.06 3.93 0.07 0.09 0.07 0.03	3	0.54	33.99	30.36	33.12	38.54	36.65	34.18	35.30	31.38	35.14	33.47	25.14	33.15
1.83 2.48 2.69 3.39 3.06 2.75 3.07 3.70 1.62 2.14 2.70 2.23 2.43 2.06 2.24 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.08 2.11 2.60 2.03 1.67 1.68 1.62 1.46 0.09 7.94 8.06 3.93 0.07 0.09 0.07 0.03	ω	2.88	34.12	28.73	23.05	27.05	36.74	39.75	38.60	41.80	50.46	52.71	39.53	37.12
1.62 2.14 2.70 2.23 2.43 2.06 2.24 1.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.08 2.11 2.60 2.03 1.67 1.68 1.62 1.46 0.09 7.94 8.06 3.93 0.07 0.09 0.07 0.09 0.07 0.03		86:1	1.83	2.48	2.69	3.39	3.06	2.75	3.07	3.70	3.03	3.37	6.07	3.12
0.00 0.00 0.00 0.00 0.00 0.00 0.00 2.08 2.11 2.60 2.03 1.67 1.68 1.62 1.46 0.09 7.94 8.06 3.93 0.07 0.09 0.07 0.03		1.29	1.62	2.14	2.70	2.23	2.43	2.06	2.24	1.55	2.12	1.50	1.53	1.95
2.08 2.11 2.60 2.03 1.67 1.68 1.62 1.46 0.09 7.94 8.06 3.93 0.07 0.09 0.07 0.03		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.09 7.94 8.06 3.93 0.07 0.09 0.07 0.03		1.99	2.08	2.11	2.60	2.03	1.67	1.68	1.62	1.46	1.91	1.06	1.46	1.81
		10.77	0.09	7.94	8.06	3.93	0.07	0.09	0.07	0.03	3.93	5.25	1.55	3.48

Numbers may not equal 100% due to rounding.

Office of Regulatory Staff

Generation Statistics for Major Plants

Plant	Fuel Type	Average Fuel Cost (¢/kWh) 1	Generation (MWh)
V.C. Summer	Nuclear	0.950	7,366,391
Columbia Energy Center ²	Natural Gas	2.453	1,667,810
Jasper CC	Natural Gas	2.775	5,056,429
Urquhart #3	Natural Gas	3.182	80,127
Urquhart CC	Natural Gas	3.310	2,059,939
Wateree	Coal	3.431	3,800,002
Cope	Coal/Natural Gas	3.486	1,719,120
Williams	Coal	3.594	2,961,014
McMeekin	Natural Gas	5.311	604,701

¹ Includes Base Fuel and Environmental Costs.

² Columbia Energy Center was purchased by SCE&G on 5/3/2018

Comparison of Estimated to Actual Energy Sales South Carolina Electric & Gas Company Office of Regulatory Staff Docket No. 2019-2-E

						20	2018						
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Period Total
Actual Sales (MWh)		2,165,516 1,775,714 1,571,374 1,616,325	1,571,374	1,616,325	1,717,507	2,050,437	1,717,507 2,050,437 2,245,651 2,217,756 2,126,238 1,996,301 1,597,449 1,758,238	2,217,756	2,126,238	1,996,301	1,597,449	1,758,238	22,838,506
Estimated [2] Sales (MWh)		2,012,600 1,844,100 1,698,300 1,622,900	1,698,300	1,622,900	1,726,600	1,977,400	1,726,600 1,977,400 2,176,500 2,238,900 1,965,000 1,753,600 1,560,300 1,770,400	2,238,900	1,965,000	1,753,600	1,560,300	1,770,400	22,346,600
[3] Difference [1]-[2]	e 152,916	-68,386	-126,926	-6,575	-9,093	73,037	69,151	-21,144	161,238	242,701	37,149	-12,162	491,906
Percent [4] Difference [3]/[2]	t 7.60%	-3.71%	-7.47%	-0.41%	-0.53%	3.69%	3.18%	-0.94%	8.21%	13.84%	2.38%	-0.69%	2.20%

Office of Regulatory Staff
Comparison of Estimated to Actual Fuel Cost
South Carolina Electric & Gas Company
Docket No. 2019-2-E

Jan Feb Mar Apr May June July Aug 4.9667 2.2264 2.7361 2.5168 3.0027 2.7668 2.6249 2.6613	Aug Sept Oct Nov	Dec Period Average
4.9667 2.2264 2.7361 2.5168 3.0027 2.7668 2.6249 2.6613		
(CKWII)	2.6613 2.5830 2.9120 3.7704	2.9550 2.9768
Original 2.9353 2.6422 2.5924 2.6826 2.9250 2.8915 2.7930 2.7629 2.593 (¢/kWh)	2.7629 2.5930 2.9337 3.3252	2.9588 2.8363
18e 2.4510 2.4510 2.4510 2.4510 2.4510 2.4510 2.4510 2.4510	2.4510 2.4510 2.4510 2.4510	2.4510 2.4510

EXHIBIT AMS-9

History of Cumulative Recovery Accounts

Period Ending	Base Fuel (Over)/Under	nvironmental & voided Capacity (Over)/Under	DE	CRP Avoided Costs (Over)/Under
December-08	\$ 130,199,721	\$ (14,512,678)		N/A
December-09	\$ 89,477,296	\$ (13,544,222)		N/A
December-10	\$ 76,013,131	\$ (3,180,866)		N/A
December-11	\$ 92,791,882	\$ 3,051,203		N/A
December-12	\$ 82,500,782	\$ 1,654,373		N/A
December-13	\$ 60,307,192	\$ 202,213		N/A
December-14	\$ 64,427,701	\$ (277,377)		N/A
December-15	\$ (21,307,142)	\$ (4,359,999)	\$	(2,035)
December-16	\$ (52,599,284)	\$ (3,904,943)	\$	(1,709,001)
December-17	\$ 2,355,695	\$ (2,272,425)	\$	(1,504,687)
December-18	\$ (8,740,636)	\$ (2,120,185)	\$	(1,856,462)

Office of Regulatory Staff Proposed Fuel Factors

South Carolina Electric & Gas Company Docket No. 2019-2-E

SCE&G Proposed Fuel Factors (¢/kWh)

Customer Class	Base Fuel Component	Environmental Fuel & Avoided Capacity Component	DERP Avoided Cost Component	Total Fuel Factor
Residential	2.451	0.071	0.033	2.555
Small General Service	2.451	0.065	0.031	2.547
Medium General Service	2.451	0.055	0.026	2.532
Large General Service	2.451	0.035	0.016	2.502
Lighting	2.451	0.000	0.000	2.451